

10 CSR 10-5.220 Control of Petroleum Liquid Storage, Loading and Transfer

(1) Definitions.

(A) Definitions of certain terms used in this rule may be found in 10 CSR 10-6.020.

(B) Definitions Specific to This Rule.

1. CARB—California Air Resources Board, 2020 L Street, P.O. Box 2815, Sacramento, CA 95812.
2. Department—Missouri Department of Natural Resources, 205 Jefferson Street, P.O. Box 176, Jefferson City, MO 65102.
3. Director—The director of the Missouri Department of Natural Resources, or a designated representative to carry out the duties as described in 643.060 of the Missouri Air Conservation Law.
4. System—Manufacturer's application of one of the specific designs for Stage II vapor recovery.
5. Staff director—Director of the Air Pollution Control Program of the Department of Natural Resources, or a designated representative.
6. Vapor recovery system modification—Any repair, replacement, alteration or upgrading of vapor recovery equipment or gasoline dispensing equipment beyond normal maintenance of the system as permitted by the staff director. Replacement of equipment with like equipment shall not be considered a vapor recovery system modification.
7. MO/PETP—The Missouri *Performance Evaluation Test Procedures*, a set of test procedures for evaluating performance of Stage I/II vapor control equipment and systems to be installed or that have been installed in Missouri. Contact the department for a copy of the latest MO/PETP.
8. Initial fueling of motor vehicles—The operation of dispensing gasoline fuel into a newly assembled motor vehicle at an automobile assembly plant while the vehicle is still being assembled on the

assembly line. The newly assembled motor vehicles being fueled on the assembly line must have fuel tanks that have never before contained gasoline fuel.

9. Ancillary refueling system—Any gasoline dispensing facility that shares a common storage tank with an initial fueling system as defined in paragraph (1)(B)8. of this rule. The purpose of an ancillary refueling system is to refuel in-use motor vehicles at automobile assembly plants.

(2) Applicability.

- (A) This rule shall apply throughout St. Louis City and Jefferson, St. Charles, Franklin and St. Louis Counties.
- (B) Compliance with this rule does not relieve the owner or operator of the responsibility to comply with other applicable governmental requirements.

(3) Petroleum Storage Tanks.

- (A) No owner or operator of petroleum storage tanks shall cause or permit the storage in any stationary storage tank of more than forty thousand (40,000) gallons capacity of any petroleum liquid having a true vapor pressure of one and five-tenths (1.5) pounds per square inch absolute (psia) or greater at ninety degrees Fahrenheit (90°F), unless the storage tank is a pressure tank capable of maintaining working pressures sufficient at all times to prevent volatile organic compound (VOC) vapor or gas loss to the atmosphere or is equipped with one (1) of the following vapor loss control devices:

1. A floating roof, consisting of a pontoon type, double-deck type or internal floating cover or external floating cover, that rests on the surface of the liquid contents and is equipped with a closure seal(s) to close the space between the roof edge and tank wall. Storage tanks with external floating roofs shall meet the additional following requirements:

A. The storage tank is fitted with—

- (I) A continuous secondary seal extending from the floating roof to the tank wall (rim-mounted secondary seal); or
 - (II) A closure or other device approved by the staff director that controls VOC emissions with an effectiveness equal to or greater than a seal required under part (3)(A)1.A.(I) of this rule;
- B. All seal closure devices meet the following requirements:
 - (I) There are no visible holes, tears or other openings in the seal(s) or seal fabric;
 - (II) The seal(s) is intact and uniformly in place around the circumference of the floating roof between the floating roof and the tank wall; and
 - (III) For vapor-mounted primary seals, the accumulated area of gaps exceeding 0.32 centimeters, one-eighth inch (1/8") width, between the secondary seal and the tank wall shall not exceed 21.2 cm² per meter of tank diameter (1.0 in² per foot of tank diameter);
- C. All openings in the external floating roof, except for automatic bleeder vents, rim space vents and leg sleeves, are equipped with—
 - (I) Covers, seals or lids in the closed position except when the openings are in actual use; and
 - (II) Projections into the tank which remain below the liquid surface at all times;
- D. Automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports;
- E. Rim vents are set to open when the roof is

being floated off the leg supports or at the manufacturer's recommended setting; and

- F. Emergency roof drains are provided with slotted membrane fabric covers or equivalent covers which cover at least ninety percent (90%) of the area of the opening;
 - 2. A vapor recovery system with all storage tank gauging and sampling devices gas-tight, except when gauging or sampling is taking place. The vapor disposal portion of the vapor recovery system shall consist of an absorber system, condensation system, incinerator or equivalent vapor disposal system that processes the vapor and gases from the equipment being controlled; or
 - 3. Other equipment or means of equal efficiency for purposes of air pollution control that may be approved by the staff director.
- (B) Control equipment described in paragraph (3)(A)1. of this rule shall not be allowed if the petroleum liquid other than gasoline has a true vapor pressure of 11.1 psia or greater at ninety degrees Fahrenheit (90°F). All storage tank gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.
- (C) Owners and operators of petroleum storage tanks subject to this section shall maintain written records of maintenance (both routine and unscheduled) performed on the tanks, all repairs made, the results of all tests performed and the type and quantity of petroleum liquid stored in them. The records shall be maintained for two (2) years and made available to the staff director upon request.
- (D) This section shall not apply to petroleum storage tanks which—
- 1. Are used to store processed and/or treated petroleum or condensate when it is stored, processed and/or treated at a drilling and production installation prior to custody transfer;
 - 2. Contain a petroleum liquid with a true vapor pressure less than 27.6 kilopascals (kPa) (4.0 psia) at ninety degrees Fahrenheit (90°F);

3. Are of welded construction, and equipped with a metallic-type shoe primary seal and have a shoe-mounted secondary seal or closure devices of demonstrated equivalence approved by the staff director; and
4. Are used to store waxy, heavy pour crude oil.

(4) Gasoline Loading.

- (A) No owner or operator of a gasoline loading installation or delivery vessel shall cause or permit the loading of gasoline into any delivery vessel from a loading installation unless the loading installation is equipped with a vapor recovery system or equivalent. This system or system equivalent shall be approved by the staff director and the delivery vessel shall be in compliance with section (6) of this rule.
- (B) Loading shall be accomplished in a manner that the displaced vapors and air will be vented only to the vapor recovery system. Measures shall be taken to prevent liquid drainage from the loading device when it is not in use or to accomplish complete drainage before the loading device is disconnected. The vapor disposal portion of the vapor recovery system shall consist of one (1) of the following:
 1. An absorber system, condensation system, incinerator or equivalent vapor disposal system that processes the vapors and gases from the equipment being controlled and limits the discharge of VOC into the atmosphere to ten (10) milligrams of VOC vapor per liter of gasoline loaded. Each owner or operator shall comply as expeditiously as practicable but no later than December 31, 1995;
 2. A vapor handling system that directs the vapor to a fuel gas system; or
 3. Other equipment of an efficiency equal to or greater than paragraph (4)(B)1. or 2. of this rule if approved by the staff director.
- (C) Owners or operators of loading installations shall keep complete records documenting the number of delivery

vessels loaded and their owners. Records shall be kept for two (2) years and shall be made available to the staff director upon request.

(D) This section shall not apply to a loading installation whose average monthly throughput of gasoline is less than or equal to one hundred twenty thousand (120,000) gallons when averaged over the most recent calendar year, provided that the installation loads gasoline by submerged loading.

1. To maintain the exemption, these installations shall submit to the staff director on a form supplied by the department by February 1 of each year, a report stating gasoline throughput for each month of the previous calendar year. After the effective date of this rule, any revision to the department supplied forms will be presented to the regulated community for a forty-five (45)-day comment period.
2. Delivery vessels purchased after December 31, 1995, shall be Stage I equipped.
3. A loading installation that fails to meet the requirements of the exemption for one (1) calendar year shall not qualify for the exemption again.
4. To maintain the exemption owners or operators shall maintain records of gasoline throughput and gasoline delivery.
5. Delivery vessels operated by an exempt installation shall not deliver to Stage I controlled tanks unless the delivery vessel is equipped with and employs Stage I controls.

(5) Gasoline Transfer.

(A) No owner or operator of a gasoline storage tank or delivery vessel shall cause or permit the transfer of gasoline from a delivery vessel into a gasoline storage tank with a capacity greater than five-hundred (500) gallons unless—

1. The storage tank is equipped with a submerged fill pipe extending unrestricted to within six inches

(6") of the bottom of the tank, and not touching the bottom of the tank, or the storage tank is equipped with a system that allows a bottom fill condition;

2. All storage tank caps and fittings are vapor-tight when gasoline transfer is not taking place; and
3. Each storage tank is vented via a conduit that is—
 - A. At least two inches (2") inside diameter;
 - B. At least twelve feet (12') in height above grade; and
 - C. Equipped with a pressure/vacuum valve that is CARB certified at three inches water column pressure/eight inches water column vacuum (3"wcp/8"wcv) except when the owner or operator provides documentation that the system is CARB certified for a different valve and will not function properly with a 3"wcp/8"wcv valve.

(B) Stationary storage tanks having a volume greater than one thousand (1,000) gallons shall also be equipped with a Stage I vapor recovery system and the delivery vessels to these tanks shall be in compliance with section (6) of this rule.

1. The vapor recovery system shall collect no less than ninety percent (90%) by volume of the vapors displaced from the stationary storage tank during gasoline transfer and shall return the vapors via a vapor-tight return line to the delivery vessel. After the effective date of this rule, all coaxial systems shall be equipped with poppeted fittings.
2. A delivery vessel shall be refilled only at installations complying with the provisions of section (4) of this rule.
3. This section shall not be construed to prohibit safety valves or other devices required by governmental regulations.

(C) No owner or operator of a gasoline delivery vessel

shall cause or permit the transfer of gasoline from a delivery vessel into a storage tank with a capacity greater than one thousand (1,000) gallons unless—

1. The owner or operator employs one (1) vapor line per product line during the transfer. The staff director may approve other delivery systems upon submittal to the department of test data demonstrating compliance with paragraph (5)(B)1. of this rule;
 2. The vapor hose(s) employed is no less than three inches (3") inside diameter; and
 3. The product hose(s) employed is no more than four inches (4") inside diameter.
- (D) The owner or operator of stationary storage tanks subject to this section shall keep records documenting the vessel owners and number of delivery vessels unloaded by each owner. Records shall be kept for two (2) years and shall be made available to the staff director within five (5) days of a request. The owner or operator shall retain on-site copies of the loading ticket, manifest or delivery receipt for each grade of product received, subject to examination by the staff director upon request. If a delivery receipt is retained rather than a manifest or loading ticket, the delivery ticket shall bear the following information: vendor name, date of delivery, quantity of each grade, point of origin, and the manifest or loading ticket number. The required retention on-site of the loading ticket, manifest or delivery receipt shall be limited to the four (4) most recent records for each grade of product.
- (E) The provisions of subsection (5)(B) of this rule shall not apply to transfers made to storage tanks equipped with floating roofs or their equivalent.
- (F) The provisions of subsections (5)(A)-(D) of this rule shall not apply to stationary storage tanks having a capacity less than or equal to two thousand (2,000) gallons used exclusively for the fueling of implements of agriculture.

(6) Gasoline Delivery Vessels.

- (A) No owner or operator of a gasoline delivery vessel shall operate or use a gasoline delivery vessel which is loaded or unloaded at an installation subject to section (4) or (5) unless—
1. The delivery vessel is tested annually to demonstrate compliance with the test method specified in 40 CFR part 63, subpart R, section 63.425 (e);
 2. The owner or operator obtains the completed leak test results signed by a representative of the testing facility upon successful completion of the leak test. Blank test certification application forms for the test results will be provided to the testing facilities by the department. After the effective date of this rule, any revision to the department supplied forms will be presented to the regulated community for a forty-five (45) day comment period. The owner or operator shall send a copy of the signed successful test results to the staff director. The staff director, upon receipt of acceptable test results, shall issue an official sticker to the owner or operator;
 3. The Missouri sticker is placed on the upper left portion of the back end of the vessel;
 4. The delivery vessel is repaired by the owner or operator and retested within fifteen (15) days of testing if it does not meet the leak test criteria of subsection (6)(A) of this rule; and
 5. A copy of the vessel's current Tank Truck Tightness Test results are kept with the delivery vessel at all times and made immediately available to the staff director upon request.
- (B) An owner or operator of a gasoline delivery vessel who can demonstrate to the satisfaction of the staff director that the vessel has passed a current annual leak test in another state shall be deemed to have satisfied the requirements of paragraph (6)(A)1. of this rule, if the other state's leak test program requires the same gauge pressure and test procedures as specified in paragraph (6)(A)1. of this rule. The owner or operator shall apply for a Missouri sticker

and display the Missouri sticker on the upper left portion of the back end of the delivery vessel.

(C) Owners or operators of gasoline delivery vessels shall keep records of all tests and maintenance performed on the vessels for not less than (2) years and these records shall be made available to the staff director upon request.

(D) This section shall not be construed to prohibit safety valves or other devices required by governmental safety regulations.

(7) Fueling of Motor Vehicles.

(A) General Provisions.

1. Except as provided in sections (3)-(5), no owner or operator shall install, permit the use of or maintain any stationary gasoline tank with a capacity of more than one thousand (1,000) gallons or operate a facility with a monthly throughput of greater than ten thousand (10,000) gallons of gasoline unless the storage tank(s) is equipped with a vapor recovery system. The system shall be approved by the staff director based on the current MO/PETP and shall be capable of—
 - A. Collecting the hydrocarbon vapors and gases discharged during motor vehicle fueling;
 - B. Preventing their emission into the atmosphere; and
 - C. Maintaining ninety-five percent (95%) efficiency of total capture and emission reduction;
2. The MO/PETP referenced in paragraph (7)(A)1. of this rule shall not be required before January 1, 1998. Prior to January 1, 1998, CARB documentation of ninety-five percent (95%) efficiency on a bellows balance system shall be required.
3. After January 1, 1999, no facility subject to this section shall employ remote vapor check values.

4. After January 1, 1999, no construction permit for modification or replacement of any equipment or component, including a like for like replacement, shall be approved unless the equipment or component is MO/PETP approved. After January 1, 1999, if a construction permit is not required, no facility utilizing an approved system shall modify or replace any equipment or component, including a like for like replacement, unless the equipment or component is MO/PETP approved. In the event that the staff director finds a violation of this provision, the staff director may require replacement of components or equipment with MO/PETP approved components or equipment.
5. For the purpose of section (7) of this rule, no vapor recovery systems or devices shall be installed, used or maintained until they are permitted by the director in accordance with sections (10) and (11) of this rule.
6. All tank gauging and sampling sites or ports, valves, breakaways, joints and disconnects on the vapor recovery systems shall be gas-tight to prevent VOC emissions except during gauging or sampling.
7. All vapor recovery systems shall be maintained in good working order in accordance with the manufacturer's specifications and with no indication of visible liquid leaks.
8. The operator of each affected facility shall post operation instructions conspicuously in the gasoline dispensing area for the system in use at each station. The instructions shall clearly describe how to fuel vehicles correctly with vapor recovery nozzles utilized at that station. The instructions shall also include a warning that repeated attempts to continue dispensing gasoline after the system has indicated that the vehicle fuel tank is full may result in spillage of gasoline.
9. The operator of each affected facility shall ensure gasoline is not dispensed at a rate greater than ten (10) gallons per minute.

10. The staff director shall identify and list specific defects that substantially impair the effectiveness of components or systems used for the control of gasoline vapors resulting from motor vehicle fueling operations. This ongoing list shall be used by the staff director as a basis for marking the components or systems out-of-order and shall be made available to any gasoline dispensing facilities subject to subsection (7)(A) of this rule. The list shall be made available to the facility's designated person for use in performing system maintenance.
 11. Upon the staff director's identification of substantial defects in equipment or installation of a gasoline vapor control system, the system or components shall be marked "out-of-order" and no person shall use or permit the use of that system or component until those defects and all other defects have been repaired, replaced or adjusted to establish compliance. The components or system may be released into operation when the staff director has reinspected the facility; found the system and components to be in good working order; and removed the "out-of-order" notice. The staff director shall reinspect the previously marked "out-of-order" system or component and other noted defects as expeditiously as possible after notification from the operator that the repairs have been completed. In no case shall the reinspection be more than four (4) days from the operator's notification that the repairs have been completed. In those cases in which the reinspection cannot be scheduled within the required time, the owner or operator may remove the "out-of-order" notice with permission of the staff director. If reinspection reveals that compliance has not been established, the system or components shall remain tagged "out-of-order." The staff director shall conduct a second reinspection within seven (7) days from the operator's notification that repairs have been completed.
- (B) Section (7) of this rule shall not apply to any stationary tank used primarily for the fueling of agricultural implements or implements of husbandry.

For purposes of this section, agricultural implements and implements of husbandry shall refer to vehicles exempted from licensing requirements by the Missouri Department of Revenue.

- (C) Section (7) of this rule shall not apply to any fueling system used for the initial fueling of motor vehicles as defined in paragraph (1)(B)8. of this rule.
 - (D) Subsection (7)(A) of this rule shall apply to any ancillary refueling system as defined in paragraph (1)(B)9. of this rule.
- (8) Initial Fueling of Motor Vehicles.
- (A) Section (8) of this rule shall only apply to the fueling system used for the initial fueling of motor vehicles as defined in paragraph (1)(B)8. of this rule.
 - (B) General Provisions.
 - 1. No owner or operator shall install, permit the use of or maintain any stationary gasoline tank for the purpose of initial fueling of new motor vehicle gasoline tanks unless the dispensing system is equipped with a vapor recovery system. The system shall be approved by the staff director based on the current MO/PETP and shall be capable of—
 - A. Collecting the hydrocarbon vapors and gases discharged during initial motor vehicle fueling, storage tank loading, breathing, and working losses;
 - B. Preventing their emission into the atmosphere; and
 - C. Maintaining ninety-five percent (95%) efficiency of total capture and emission reduction of the fueling and dispensing operation and the storage tank loading, breathing, and working loss emissions.
 - 2. After January 1, 1999, no facility utilizing an approved system shall modify or replace any equipment or component, including a like for like

replacement, unless the equipment or component is MO/PETP approved. In the event that the staff director finds a violation of this provision, the staff director may require replacement of components or equipment with MO/PETP approved components or equipment.

3. All tank gauging and sampling sites or ports, valves, flanges, breakaways, joints and disconnects on the vapor recovery systems shall be gas-tight to prevent VOC emissions except during gauging or sampling. Under no circumstances shall there be any visible liquid leaks or detectable vapor emissions.
4. All vapor recovery systems shall be maintained in good working order in accordance with the manufacturer's specifications and with no indication of visible liquid leaks.
5. These facilities and their vapor recovery systems are subject to all conditions of the MO/PETP Approval document.
6. The owner or operator of a vapor recovery system must conduct regular preventative maintenance self-inspections and conduct any necessary repairs upon identification of those defects. The facility must conduct all maintenance specified by manufacturer guidelines. These manufacturer guidelines must be made available to inspectors upon request.
7. Records must be kept on site of all self-inspections, defects found, repairs, and maintenance activities. Records must be made available to the department inspectors upon request.
8. Facilities will allow the department to make vapor recovery inspections at any time to ensure systems are in working order and are being maintained and operated according to permits and regulations, MO/PETP approvals, and manufacturer recommendations.
9. The department and local agency Stage II

inspectors will make every attempt to avoid disrupting assembly line production. This may be done by allowing initial fueling site personnel to make repairs on the spot, or within a reasonable time frame. However, this consideration will not affect recording of defects or enforcement action.

10. After repairs are made and notification by the plant is received, the department or local agency will reinspect all defects found in official Stage II inspections. Failure by a facility to notify the department of repairs and request reinspection within 15 days of repair may result in enforcement action.

(9) Permits Required.

- (A) All facilities subject to subsection (7)(A) of this rule, except facilities subject to subsection (7)(D) of this rule, shall meet the following permitting requirements:

1. No facility subject to section (7) of this rule shall construct or undergo vapor recovery system modification without permits obtained according to section (10) of this rule; and
2. No facility subject to section (7) of this rule shall operate without an operating permit obtained according to section (11) of this rule.

- (B) All facilities subject to subsection (7)(D) and section (8) of this rule shall meet the following permitting requirements:

1. The facility must apply for a Stage II construction permit for all modifications or construction of initial fueling systems or ancillary refueling systems. All performance testing in sections (10) and (11) of this rule shall be conducted to ensure system integrity; and
2. All operating permitting requirements of section (11) of this rule, except subsection (11)(B) of this rule, are applicable to any initial fueling systems or ancillary refueling systems. Except for the initial Stage II Operating Permit, Stage

II Operating Permits shall be incorporated as part of the facility applicable requirements of Part 70 Operating Permits according to 10 CSR 10-6.065.

- (10) Construction Permits for Vapor Recovery Systems for New Facilities and Vapor Recovery System Modification for Existing Facilities. No new gasoline dispensing facility that requires a Stage II vapor recovery system shall begin construction prior to obtaining a construction permit according to subsection (10)(A) of this rule. Facilities shall apply for permits to test experimental technology according to subsection (10)(B) of this rule. Existing facilities that undergo vapor recovery system modification shall obtain permits according to subsection (10)(C) of this rule. Owners, operators and contractors beginning construction without first obtaining a construction permit are subject to enforcement action.

- (A) Owners or operators of new gasoline dispensing facilities that require Stage II equipment shall—

1. Submit an application on a form supplied by the department for a permit to construct at least sixty (60) days prior to beginning construction. The application shall include:
 - A. Complete diagrams and a thorough description of the planned facility;
 - B. Plumbing diagrams including vapor lines, vent lines, slope of return vapor lines, material of all underground, above ground and dispenser plumbing, grade of site in relation to tanks, plumbing, and dispensers;
 - C. Current CARB executive orders for the proposed system and/or the system components. After January 1, 1998, no facility shall be issued a construction permit unless the system that will be installed has been demonstrated to achieve ninety-five percent (95%) efficiency according to paragraph (7)(A)1. of this rule. After January 1, 1999, no facility shall be issued a construction permit unless the equipment and components of the approved system that will be installed have been MO/PETP tested and

approved;

D. At the option of the owner/operator, full port ball valves may be installed just below the riser of the vapor chamber. The ball valves shall be sealed fully open at all times except during testing. The ball valve shall be tested in line during the dynamic back pressure blockage test;

E. Detailed description of the storage tank(s). The storage tank(s) shall be-

(I) Type I tank(s). A Type I tank is an underground storage tank that shall be covered with not less than six inches (6") of soil and/or concrete; or

(II) Type II tank(s). A Type II tank is one that has any portion of the shell exposed to the atmosphere. A Type II tank shall be equipped with a vapor processor; and

F. Schedule of construction;

2. Obtain a construction permit prior to beginning construction. The director shall issue a construction permit or a permit rejection within thirty (30) days of receipt of the application. When an appeal is made following rejection of the application to construct, that appeal shall be filed within thirty (30) days of the notice of rejection;
3. Display the construction permit in a prominent location during construction;
4. Notify the department seven (7) calendar days prior to the anticipated completion date of underground piping and schedule a mutually acceptable inspection date. In the event that no mutually acceptable date is available, the staff director shall schedule the inspection date. The underground piping shall not be covered without visual inspection by the staff director. If defects are found, the staff director shall

provide written notice of those defects;

5. Establish compliance with all rules and requirements of the department including those in Title 10 of the *Code of State Regulations*;
 6. Document for the staff director that prior to the introduction of product, the tank and piping system were subjected to a construction pressurization test of not more than five pounds per square inch (5 psi) and not less than four and five-tenths pounds per square inch (4.5 psi) and maintained this pressure for not less than thirty (30) minutes;
 7. Obtain staff director approval of final test methods and procedures that will be used to prove compliance;
 8. Within thirty (30) days of completion of construction, conduct and pass final leak tests and dynamic back pressure/liquid blockage tests to show compliance with department requirements. The staff director may observe the test; and
 9. Obtain and maintain on-site in a prominent location the current operating permit from the director for the site and the specific vapor recovery system that was installed. The operating permit is renewable every five (5) years and shall be maintained according to section (11) of this rule.
- (B) The director may approve experimental technology for a specific gasoline dispensing facility. Experimental technology may be approved for up to one (1) year for a limited number of stations under specific conditions determined by the staff director. Facilities applying for approval of experimental technology shall—
1. Submit an application for director approval at least ninety (90) days prior to beginning construction. The application shall include, but not be limited to:
 - A. Complete diagrams and a thorough description of the planned facility;

- B. Plumbing diagrams including vapor lines, vent lines, slope of return vapor lines, material of all underground, above ground and dispenser plumbing, grade of site in relation to tanks, plumbing, and dispensers; and
 - C. Standards, test data, history, and related information for the proposed system;
- 2. Submit to the staff director a detailed plan for the construction and operation of the system. The plan shall include a description of the planned testing and recordkeeping for the facility. The director may issue the construction permit when all conditions of the testing facility are deemed satisfactory;
 - 3. Display the construction permit in a prominent location during construction;
 - 4. Install monitoring equipment to prove that the vapor recovery system is leak-tight if requested by the staff director; and
 - 5. Upon completion of testing, obtain and maintain on-site in a prominent location a current operating permit from the director for the specific innovative technology that is in operation. The permit shall specify the technology, the location and the time period the technology will be tested.
- (C) Existing facilities that are subject to section (7) or (8) of this rule and undergo vapor recovery system modification shall—
- 1. Submit an application on a form supplied by the department for a permit to construct prior to beginning modifications. After the effective date of this rule, any revision to the department supplied forms will be presented to the regulated community for a forty-five (45)-day comment period. Applications for construction permits shall be submitted for projects that include, but are not limited to:
 - A. Modifications that require breaking concrete

in an area that may affect the vapor lines;
and

B. Modifications that may affect the vapor lines themselves;

2. Supply any information required by the staff director for the specific facility. Such information may include, but not be limited to, plumbing diagrams, including vapor lines, vent lines, slope of vapor lines, material of all underground, above ground and dispenser plumbing, grade of site in relation to tanks, plumbing and dispensers, current CARB executive orders for the proposed system and equipment, and proof of compliance with all rules and requirements of the department including those in Title 10 of the *Code of State Regulations*;
3. Obtain a construction permit prior to beginning the modification. Continued operation during the construction requires department approval. The director shall issue a construction permit or a permit rejection within thirty (30) days of receipt of the application. When an appeal is made following rejection of the application, that appeal shall be filed within thirty (30) days of the notice of rejection;
4. Display the construction permit in a prominent location during construction;
5. Establish a schedule for inspection and testing as required by the staff director and notify the department seven (7) calendar days prior to the anticipated completion date of underground piping and schedule a mutually acceptable inspection date. In the event that no mutually acceptable date is available, the staff director shall schedule the inspection date. The underground piping shall not be covered without visual inspection by the staff director. If defects are found, the staff director shall provide written notice of those defects;
6. Supply test results to the staff director;

7. Receive staff director approval of final test methods and procedures that will be used to prove compliance;
 8. Within thirty (30) days of completion of construction, conduct and pass final leak tests and dynamic back pressure/liquid blockage tests to show compliance with department requirements. The staff director may observe the tests; and
 9. Upon completion of testing, obtain and display in a prominent location on-site the current operating permit from the director for the specific site and the specific vapor recovery system that was installed.
 - A. The operating permit shall be maintained according to section (11) of this rule, except subsection (11)(B) of this rule shall not apply to initial fueling systems and ancillary refueling systems at automobile assembly facilities.
 - B. The operating permit is renewable every five (5) years, except for operating permits covering initial fueling systems and ancillary refueling systems at automobile assembly facilities. Automobile assembly facilities shall apply for an initial Stage II Operating Permit covering both their initial fueling systems and their ancillary refueling systems that will be current until their Part 70 Operating Permit is renewed.
 - C. Except for the initial Stage II Operating Permit, the operating permit for automobile assembly facilities that covers their initial fueling systems and their ancillary refueling systems shall be incorporated as part of the facility applicable requirements of 10 CSR 10-6.065 Operating Permits.
- (11) Operating Permits for Existing Facilities. All existing facilities subject to section (7) or (8) of this rule must apply to the director for an operating permit.
- (A) Initial Operating Permits. The term of the initial

permit shall be established by the staff director. In order to obtain an operating permit an existing facility shall—

1. Apply to the director for an operating permit within sixty (60) days of the date of the staff director's notice to apply and test within ninety (90) days of the notice. However, no facility subject to this requirement shall operate after January 1, 1999, without an operating permit;
 2. Provide documentation that the Stage II system is certified by CARB as having a vapor recovery or removal efficiency of at least ninety-five percent (95%);
 3. Conduct and pass a department-approved back pressure blockage test and a department-approved leak decay test. The owner/operator of the facility shall schedule the tests and notify the staff director of the test dates at least seven (7) days prior to the testing date. The staff director may observe the tests. The owner/operator of the facility shall provide satisfactory test results to the staff director;
 4. Designate a person(s) who has attended a department-approved training course for the Stage II equipment that is installed at that facility. A designated person shall be available for consultation to facility personnel and to the department;
 5. Demonstrate that the facility maintains a system of recordkeeping that meets the staff director's requirements; and
 6. Establish compliance with all rules and requirements of the Missouri Department of Natural Resources including those in Title 10 of the *Code of State Regulations*.
- (B) Renewal of Operating Permits. The operating permit is renewable on the date specified in the initial operating permit and for periods of five (5) years after the initial permit term expires. In order to

renew the operating permit a facility shall—

1. Apply to the director for renewal of the operating permit and test within ninety (90) days prior to the renewal date;
2. Demonstrate that the facility maintained all system components in good operating order during the preceding operating permit term including prompt efforts to establish compliance following "out-of-order" notices;
3. Schedule staff director-approved tests prior to the expiration date of the permit, notify the staff director of test dates at least fourteen (14) days prior to test dates and provide documentation that the system passed the tests;
4. Maintain records according to section (12) of this rule;
5. A facility using a system that is decertified by CARB shall establish compliance with this rule within one (1) year or by the next renewal date of the operating permit whichever is longer. Failure to establish compliance will result in nonrenewal of the operating permit; and
6. After January 1, 2001, no operating permit shall be renewed without documentation that the Stage II system in use at the facility can be demonstrated to achieve ninety-five percent (95%) efficiency as specified in paragraph (7)(A)1. of this rule. Replacement of equipment and/or components in place as part of an approved system on January 1, 1999, shall not be required as long as the equipment and/or components pass operating permit tests.

(12) Owner/Operator Compliance. The owner or operator of a vapor recovery system subject to this rule shall—

(A) Operate the vapor recovery system and the gasoline loading equipment in a manner that prevents—

1. Gauge pressure from exceeding four thousand five hundred (4500) pascals (eighteen inches (18") of

H₂O) in the delivery vessel;

2. A reading equal to or greater than one hundred percent (100%) of the lower explosive limit (LEL), measured as propane at two point five (2.5) centimeters from all points on the perimeter of a potential leak source when measured by the method referenced in 10 CSR 10-6.030(14)(E) during loading or transfer operations; and
 3. Visible liquid leaks during loading or transfer operations; and
- (B) Repair and retest within fifteen (15) days, a vapor recovery system that exceeds the limits in section (12) of this rule; and
- (C) Maintain records of department permits, inspection reports, enforcement documents, training certifications, gasoline deliveries, routine and unscheduled maintenance and repairs and all results of tests conducted. Records shall be kept for two (2) years. Unless otherwise specified in this rule, records shall be available to the staff director within five (5) days of a request.

(13) Testing and Monitoring Procedures and Reporting.

- (A) Testing and monitoring procedures to determine compliance with section (6) of this rule and confirm the continuing existence of leak-tight conditions shall be according to 10 CSR 10-6.030(14)(B)1. or by any method determined by the staff director.
- (B) Testing procedures to determine compliance with paragraph (4)(B)1. shall be according to 10 CSR 10-6.030(14)(A) or by any method determined by the staff director.
- (C) The staff director, at any time, may monitor a facility subject to section (7) of this rule. The staff director may require a leak test, a back pressure blockage test, an air-to-liquid test, a pressure/vacuum valve test or may require any test or monitoring procedure in order to determine compliance with this rule.

- (D) The staff director, at any time, may monitor a delivery vessel, vapor recovery system or gasoline loading equipment by a method determined by the staff director to confirm continuing compliance with this rule.
 - (E) An annual staff director-approved back pressure blockage test and/or air-to-liquid test may be required. Additional testing may also be required by the staff director in order to determine proper functioning of vapor recovery equipment.
- (14) Vapor Recovery Advisory Group. The St. Louis Vapor Recovery Advisory Group shall advise the staff director on vapor recovery issues in the St. Louis nonattainment area.
- (A) Composition. The advisory group will consist of one (1) representative from each of these agencies or organizations:
 - 1. Missouri Department of Natural Resources, Air Pollution Control Program;
 - 2. Missouri Department of Natural Resources, Hazardous Waste Program Underground Storage Tank Unit;
 - 3. St. Louis City Air Pollution Control Agency or St. Louis County Air Pollution Control Agency;
 - 4. Missouri Department of Agriculture, Division of Weights and Measures;
 - 5. An organization representing petroleum marketers;
 - 6. An organization representing petroleum equipment contractors; and
 - 7. An organization representing oil refiners.
 - (B) Purpose. The St. Louis Vapor Recovery Advisory Group shall review, study and make recommendations to the staff director on vapor recovery issues. Any member of the advisory group may bring an issue to the attention of the group. The advisory group shall—
 - 1. Review vapor recovery system components that frequently fail;

2. Review CARB certifications and decertifications of vapor recovery system components;
 3. Develop modifications to established tests such as the leak decay test and the back pressure blockage test. Modified test procedures shall prove integrity of Stage I and Stage II systems but may be designed for cost and time efficiency; and
 4. Review any other vapor recovery issues deemed appropriate by the staff director.
- (C) Limitations. The advisory group is subject to all applicable state and federal statutes and regulations. All advisory group meetings shall comply with the Missouri Sunshine Act. The advisory group assumes no regulatory authority.

